All claims being allowable, PROSECUTION ON THE MERITS IS (OR R herewith (or previously mailed), a Notice of Allowance (PTOL-85) or oth NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS of the Office or upon petition by the applicant. See 37 CFR 1.313 and № 1. This communication is responsive to 5/30/2006. The allowed claim(s) is/are 1-11 and 13-36. Acknowledgment is made of a claim for foreign priority under 35 a) All b) Some* c) None of the: 1. Certified copies of the priority documents have been 2. Certified copies of the priority documents have been 3. Copies of the certified copies of the priority document International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this noted below. Failure to timely comply will result in ABANDONMENT of THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. NINFORMAL PATENT APPLICATION (PTO-152) which gives reas	A. Amini The cover sheet with the EMAINS) CLOSED in this er appropriate communication is subjected by the s	s application. If not included ation will be mailed in due course. THIS ect to withdrawal from issue at the initiativ). o this national stage application from the
- The MAILING DATE of this communication appears or All claims being allowable, PROSECUTION ON THE MERITS IS (OR R herewith (or previously mailed), a Notice of Allowance (PTOL-85) or oth NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS of the Office or upon petition by the applicant. See 37 CFR 1.313 and № 1. ☑ This communication is responsive to 5/30/2006. 2. ☑ The allowed claim(s) is/are 1-11 and 13-36. 3. ☐ Acknowledgment is made of a claim for foreign priority under 35 a) ☐ All b) ☐ Some* c) ☐ None of the: 1. ☐ Certified copies of the priority documents have been 2. ☐ Certified copies of the priority documents have been 3. ☐ Copies of the certified copies of the priority document International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this noted below. Failure to timely comply will result in ABANDONMENT of THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. NINFORMAL PATENT APPLICATION (PTO-152) which gives reas [a] ☐ including changes required by the Notice of Draftsperson's Position of the proper No./Mail Date (b) ☐ including changes required by the attached Examiner's Amer Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)).	A. Amini The cover sheet with the EMAINS) CLOSED in this er appropriate communication is subject that application is subject to the subject	he correspondence addresss application. If not included ation will be mailed in due course. THIS ect to withdrawal from issue at the initiative.
The MAILING DATE of this communication appears or All claims being allowable, PROSECUTION ON THE MERITS IS (OR R herewith (or previously mailed), a Notice of Allowance (PTOL-85) or oth NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS of the Office or upon petition by the applicant. See 37 CFR 1.313 and N 1. This communication is responsive to 5/30/2006. 2. The allowed claim(s) is/are 1-11 and 13-36. 3. Acknowledgment is made of a claim for foreign priority under 35 a) All b) Some* c) None of the: 1. Certified copies of the priority documents have been 2. Certified copies of the priority documents have been 3. Copies of the certified copies of the priority document International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this noted below. Failure to timely comply will result in ABANDONMENT of THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. NINFORMAL PATENT APPLICATION (PTO-152) which gives reas [a] including changes required by the Notice of Draftsperson's P 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amer Paper No./Mail Date	the cover sheet with the EMAINS) CLOSED in this er appropriate communication is subjusted in the subjusted i	the correspondence address-s application. If not included ation will be mailed in due course. THIS ect to withdrawal from issue at the initiative.
The MAILING DATE of this communication appears or All claims being allowable, PROSECUTION ON THE MERITS IS (OR R herewith (or previously mailed), a Notice of Allowance (PTOL-85) or oth NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS of the Office or upon petition by the applicant. See 37 CFR 1.313 and Notice of the Office or upon petition by the applicant. See 37 CFR 1.313 and Notice of the Office or upon petition by the applicant. See 37 CFR 1.313 and Notice of the Office or upon petition by the applicant. See 37 CFR 1.313 and Notice of the Office or upon petition by the applicant. See 37 CFR 1.313 and Notice of the Office or upon petition by the applicant. See 37 CFR 1.313 and Notice of Allowance of the Office or upon petition by the applicant has the property of the priority documents have been as a community of the Certified copies of the priority documents have been as a copies of the certified copies of the priority document of the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this noted below. Failure to timely comply will result in ABANDONMENT of THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4 A SUBSTITUTE OATH OR DECLARATION must be submitted. Note of Draftsperson's Patent APPLICATION (PTO-152) which gives reases and including changes required by the Notice of Draftsperson's Patent or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amer Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)):	the cover sheet with the EMAINS) CLOSED in this er appropriate communication is subjusted in the subjusted i	the correspondence address-s application. If not included ation will be mailed in due course. THIS ect to withdrawal from issue at the initiative.
2. The allowed claim(s) is/are 1-11 and 13-36. 3. Acknowledgment is made of a claim for foreign priority under 35 a) All b) Some* c) None of the: 1. Certified copies of the priority documents have been 2. Certified copies of the priority documents have been 3. Copies of the certified copies of the priority document International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this noted below. Failure to timely comply will result in ABANDONMENT of THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. NINFORMAL PATENT APPLICATION (PTO-152) which gives reas (a) including changes required by the Notice of Draftsperson's Period including changes required by the Alloham Date (b) including changes required by the attached Examiner's Amer Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) and the priority and the submitted of the paper No./Mail Date	received. received in Application N is have been received in communication to file a ref	o this national stage application from the
Acknowledgment is made of a claim for foreign priority under 35 a)	received. received in Application N is have been received in communication to file a ref	o this national stage application from the
a) All b) Some* c) None of the: 1. Certified copies of the priority documents have been 2. Certified copies of the priority documents have been 3. Copies of the certified copies of the priority document International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this noted below. Failure to timely comply will result in ABANDONMENT of THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. No INFORMAL PATENT APPLICATION (PTO-152) which gives reased. 5. CORRECTED DRAWINGS (as "replacement sheets") must be suenced including changes required by the Notice of Draftsperson's Patential of Patential Oath Pate	received. received in Application N is have been received in communication to file a ref	o this national stage application from the
3. Copies of the certified copies of the priority document International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this noted below. Failure to timely comply will result in ABANDONMENT of THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note INFORMAL PATENT APPLICATION (PTO-152) which gives reases [a] including changes required by the Notice of Draftsperson's Patential of the Notice of Draftsperson's	is have been received in communication to file a ref	this national stage application from the
International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this noted below. Failure to timely comply will result in ABANDONMENT of THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. No INFORMAL PATENT APPLICATION (PTO-152) which gives reased. 5. CORRECTED DRAWINGS (as "replacement sheets") must be sure (a) including changes required by the Notice of Draftsperson's Parent or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amer Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) and the paper No./Mail Date	communication to file a ref f this application.	
* Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this noted below. Failure to timely comply will result in ABANDONMENT of THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. No INFORMAL PATENT APPLICATION (PTO-152) which gives reased. 5. CORRECTED DRAWINGS (as "replacement sheets") must be sured; including changes required by the Notice of Draftsperson's Paragraph (b) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amer Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) seed to the summer of the su	f this application.	eply complying with the requirements
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this noted below. Failure to timely comply will result in ABANDONMENT of THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. No INFORMAL PATENT APPLICATION (PTO-152) which gives reas considered by the Notice of Draftsperson's Proceeding of the Notice of Draftsperson's	f this application.	eply complying with the requirements
noted below. Failure to timely comply will result in ABANDONMENT of THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. No INFORMAL PATENT APPLICATION (PTO-152) which gives reases. 5. CORRECTED DRAWINGS (as "replacement sheets") must be sure (a) including changes required by the Notice of Draftsperson's Proper No./Mail Date (b) including changes required by the attached Examiner's Amer Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) see the submitted in t	f this application.	eply complying with the requirements
INFORMAL PATENT APPLICATION (PTO-152) which gives reas 5. CORRECTED DRAWINGS (as "replacement sheets") must be su (a) including changes required by the Notice of Draftsperson's P 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amer Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) sees a second content of the second conten		
 (a) ☐ including changes required by the Notice of Draftsperson's P. 1) ☐ hereto or 2) ☐ to Paper No./Mail Date (b) ☐ including changes required by the attached Examiner's Amer Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)): 	ote the attached EXAMII on(s) why the oath or de	NER'S AMENDMENT or NOTICE OF claration is deficient.
1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amer Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c))	bmitted.	•
(b) ☐ including changes required by the attached Examiner's Amer Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c))	atent Drawing Review (F	PTO-948) attached
Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c))		
Identifying indicia such as the application number (see 37 CFR 1.84(c)) each sheet. Replacement sheet(s) should be labeled as such in the head		
	should be written on the diler according to 37 CFR 1.	rawings in the front (not the back) of 121(d).
 DEPOSIT OF and/or INFORMATION about the deposit of E attached Examiner's comment regarding REQUIREMENT FOR T 	BIOLOGICAL MATERIA HE DEPOSIT OF BIOLO	AL must be submitted. Note the GICAL MATERIAL.
		·
Attachment(s) I. □ Notice of References Cited (PTO-892)	5 Nation of Inform	and Detect Application (DTO 450)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)	6. ☐ Interview Sumn	nal Patent Application (PTO-152)
	Paper No./Mail 7. Examiner's Amo	Date
 Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 	7. Examiner's Am	endment/Comment
Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. 🛭 Examiner's Stat	tement of Reasons for Allowance
o. Diological Material	9.	

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/30/2006 has been entered.

Allowable Subject Matter

Claims 1-11, and 13-36 are allowed.

The following is an examiner's statement of reasons for allowance:

The independent claims 1, 10, 18, 24, and 33, recite the limitations to provide shifting and rendering pixels at the geometric primitive level at multiple sub-pixel positions. The resulting sets of pixels are then combined to provide the values for pixels of the geometric primitive. Also in claims 1, 10, 18, 24 and 33 recites a method for calculating values for pixels of an image that includes generating pixels for geometric primitives by taking sample values at first and second sub-pixel positions (or set of pixels) and combing the sample values to generate values for pixels representing the primitive positioned at the first pixel position.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 09/945,367

Art Unit: 2628

Conclusion

Page 3

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Javid A. Amini whose telephone number is 571-272-7654. The

examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kee Tung can be reached on 571-272-7794. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Javid A Amini Examiner

Art Unit 2628

Javid Amini

KEE M. TUNG_

CUREDVISORY PATENT EXA